

TSYPKIN, I.V.

Mesothelioma of the epididymis. Urologia 27 no.4:65 J1-Ag '62.  
(MIRA 15:11)

1. Iz urologicheskogo otdeleniya (zav. I.V. TSypkin) Rzhskoy  
dorozhnoy bol'nitsy.  
(EPIDEDYMIS--TUMORS)

TSYPKIN, K., polkovnik; PAKHOMOV, V., polkovnik.

Selfless action of combat engineers in fighting a flood. Voen.-inzh.  
zhur. 101 no.2:34-35 F '58. (MIRA 11:3)  
(Military engineers) (Ural Mountain region--Floods)

TSYPKIN, K., polkovnik; PAKHOMOV, V., polkovnik.

Clearing the building site of the Stalingrad Hydroelectric Power  
Station of mines. Voen.-inzh. zhur. 101 no.2:33-34 F '58.  
(MIRA 11:3)

(Stalingrad Hydroelectric Power Station--Mines, Military)

TSYPKIN, K., polkovnik; PAKHOMOV, V., polkovnik.

Removing mines in the Smolensk Province. Voen.-inzh. zhur. 101 no.2:  
34 P '58. (MIRA 11:3)

(Smolensk Province--Mines, Military)

CHUMAKOVA, M.Ya.; VASIL'YEV, Yu.M.; SAVINOV, A.P.; AGOL, V.I.;  
TSYPKIN, L.B.

Strain of malignant cells obtained through the prolonged cultivation in vitro of normal kidney tissue from mice of the A/SN line. Vop.onk. 8 no.8:51-57 '62. (MIRA 15:9)

1. Iz Instituta po izucheniyu poliomeilita i virusnykh entsefalitov (dir. - deystv. chl. AMN SSSR, prof. M.P. Chumakov) i Instituta eksperimental'noy i klinicheskoy onkologii (dir. - deystv. chl. AMN SSSR, prof. N.N. Elokhin) Akademii meditsinskikh nauk SSSR.  
(CANCER) (TISSUE CULTURE) (KIDNEYS)

TSYPKIN, L.B. (Moskva)

Method for mounting sections stained for fat in Canada balsam. Arkh.  
pat. 21 no.2:80 '59. (MIRA 12:12)

1. Iz patologoanatomicheskogo otdeleniya Moskovskoy oblastnoy psikhonevrologicheskoy bol'nitsy No.2 im. V.I. Yakovenko (glavnyy vrach V.V. Chentsov).

(HISTOLOGY,

inclusion into Canada balsam of section stained for  
fat (Rns))

(FATS,

same)

SAVINOV, A.P.; TSYPKIN, L.B.

Morphological study on subcutaneous implants of stable cultures of monkey heart. Vop.onk. 5 no.9:319-325 '59. (MIRA 12:12)

1. Iz laboratorii patologicheskoy gistologii (zav. - dots. I.A. Robinson, konsul'tant po teme - chlen-korrespondent AMN SSSR prof. L.M. Shabad) Instituta po izucheniya poliomielifita AMN SSSR (dir. - chlen-korrespondent AMN SSSR prof. M.P. Chumakov). Adres avtorov: Moskva, 118, 8-ya ul., Sokolinoy gory, d.15, korp. 2. Institut po izucheniya poliomielifita AMN SSSR (dir. - chlen-korrespondent AMN SSSR prof. M.P. Chumakov). Adres avtorov: Moskva, 118, 8-ya ul. Sokolinoy gory, d.15, korp. 2. Institut po izucheniya poliomielifita AMN SSSR.  
(HEART)  
(NEOPLASMS exper.)

SAVINOV, A.P.; TSYPKIN, L.B.

Results of a morphological study of the stability of cultures of  
Cynomolgus monkey heart cells in vivo. Vop.virus. 5 no.3:367-372  
My-Je '60. (MIRA 13:9)

1. Institut po izucheniyu poliomiylita AMN SSSR, Moskva.  
(NEOPLASMS) (VIRUSES)



HOZINSKI, V.I.; SEYBIL, V.B.; TSYPKIN, L.B.; PANTELEEVA, N.S.;  
MAZUROVA, S.M.

Attempt to establish a diploid cell strain from human embryonic  
tissue and testing its sensitivity to some viruses. Acta virol.  
8 no.5:454-458 S '64.

1. Institute of Poliomyelitis and Viral Encephalitis,  
U.S.S.R. Academy of Medical Sciences, Moscow.

TSYPKIN, L.B.

Cytological analysis of monkey testicular tissue under conditions of trypsinized monolayer culture in vitro. Biul. eksp. biol. i med. 55 no.3:96-101. Mr '63. (MIRA 18:2)

1. Iz Instituta poliomiyeilita i virusnykh entsefalitov (direktor - deystvitel'nyy chlen AMN SSSR M.P. Chumakov) AMN SSSR, Moskva.  
Submitted July 5, 1962.

TSYPKIN, L.B.

Microglial reaction in senile dementia and the role of the microglia  
in the structural genesis of senile plaques. Zhur.nevr. i psikh. 59  
no.11:1325-1331 '59. (MIRA 13:3)

1. 2-ya Moskovskaya oblastnaya psikhiatricheskaya bol'nitsa imeni  
V.I. Yakovenko (glavnyy vrach V.V. Chentsov).  
(PSYCHOSIS SENILE pathol.)  
(NEUROGLIA pathol.)

TSYPKIN, L.B. (Moskva)

Morphology of a malignant transformation of an astrocytoma.  
Arkhp.at. 20 no.11:67-71 '58. (MIRA 12:8)

1. Iz patologoanatomicheskogo otdeleniya (zav. - kand.med.  
nauk L.B.TSyppkin) Moskovskoy oblastnoy psikhonevrologiches-  
skoy bol'nitsy No.2 imeni V.I.Yakovenko (glavnyy vrach V.V.  
Chentsov).

(BRAIN--TUMORS)

TSYPKIN, L.B.

Malignant degeneration of astrocytomas. Vop. neirokhir. 19 no.1:  
38-44 Ja-F '55. (MLRA 8:2)

1. Iz pathologoanatomicheskoy laboratorii Nauchno-issledovatel'skogo  
ordena Trudovogo Krasnogo Znameni instituta neyrokhirurgii imeni  
akad. N.N.Burdenko Akademii meditsinskikh nauk SSSR.  
(ASTROCYTOMA,  
malignant degen.)

TYUFANOV, A.V.; TSYPKIN, L.B.; RAVKINA, L.I.; SHEPTEL, M.A.

Study on residual virulence for monkeys of Sabin's attenuated polio-virus strains used for mass production of live vaccine. Acta virol.  
7 no.2:116-123 Mr '63.

1. Institute of Poliomyelitis and Viral Encephalitides, U.S.S.R.  
Academy of Medical Sciences, Moscow.  
(POLIOVIRUS VACCINE, ORAL)

TSYPKIN, L. B.; KROZINSKIY, V.I.; ZEYBIL, V.B.; PANTELEYEV, N.S.; MAZUROVA, S. M.

"Utilization of a New Diploid Cell Strain Derived from Human Embryo Lung Tissue for the Cultivation of Enteroviruses and Measles-Virus."

Report presented at the Symposium on Biological Standardization, Opatija, Yugoslavia, 24-26 Sep 63.

TSYRKIN, M.I., inzh.

Pneumatic system of remote control of the main marine diesel  
engine. Sudostroenie 25 no.8:26-29 Ag '59. (MIRA 13:2)  
(Marine diesel engines) (Pneumatic control)



L 24435-66 EWT(m)/I/ENP(t) IJP(L) JD/HB/JH...  
ACC NR: AT6006478 SOURCE CODE: UR/2680/65/000/024/0102/0123

AUTHORS: Taypin, M. I.; Rozenfel'd, I. L.; Ol'khovnikov, Yu. P.; Vizhekhovskaya, S. V. 57

ORG: State Scientific Research and Design Institute of Alloys and Nonferrous Metalworking, Moscow (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov) 56 B71

TITLE: Investigation of the corrosion of aluminum in water at high temperatures 18 21

SOURCE: Moscow. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov. Trudy, no. 24, 1965. Metallovedeniye i obrabotka tsvetnykh metallov i splavov (Metal science and the treatment of non-ferrous metals and alloys), 102-123

TOPIC TAGS: aluminum, aluminum compound, corrosion, corrosion rate, intergranular corrosion/ A00 aluminum

ABSTRACT: It was the object of this investigation to resolve the existing controversy concerning the mechanism of the corrosion reaction of aluminum in water at high temperatures, as discussed by V. H. Trautner (Corrosion, 1959, v. 15, No. 1, 2

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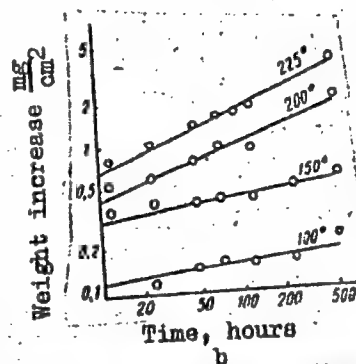
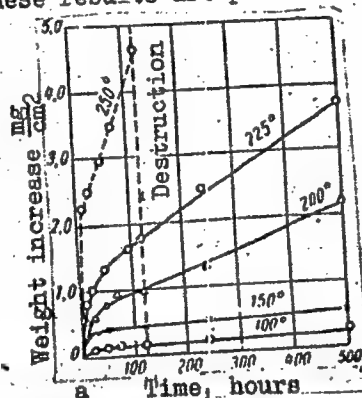
ACC NR: AT6006478

p. 17) and W. J. Bernard and J. J. Randall (Journ. Electrochem. Soc., 1961, v. 108, No. 9, p. 822). The experiments were carried out in steel autoclaves with aluminum specimens of A00 (99.99% Al) type aluminum and distilled water (pH 5.5 ~ 6.3) over the temperature range of 100--250C. The experimental results followed the relationship

$$\lg \Delta p = n \lg t + \lg k$$

where  $\Delta p$  is the weight increase of the specimen in  $\text{mg}/\text{cm}^2$ ,  $t$  - the time in hours, and  $k$  and  $n$  are constants. These results are presented graphically (see Fig. 1).

Fig. 1. Kinetics of aluminum oxidation in water at high temperatures. a - linear coordinates; b - logarithmic coordinates.



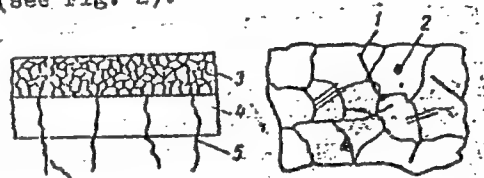
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ACC NR: AT6006478

The morphology of the corrosion products was studied. <sup>18</sup> Electron microscope pictures of the corrosion products are presented. The phase composition of the corrosion products was investigated by x-ray diffraction and electron diffraction techniques, and the results are also presented in tables and graphs. A scheme for the distribution of corrosion products is proposed (see Fig. 2).

Fig. 2. Scheme for the distribution of products based on the experimental data. 1 -  $\sigma$  phase; 2 - diasporic; 3 - crystal layer; 4 - optically structureless layer; 5 - products of inter-crystalline corrosion.



It is concluded that the experimental results support the mechanism proposed by Trautner (see reference above). The authors suggest that the rate of hydrogen ion diffusion into the metal depends on a number of factors, e.g., phase composition, size, form, and degree of perfection and optimum orientation of crystals. Orig. art. has: 5 tables, 10 graphs, and 2 equations.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 019

Card 3/3add

VLADZIYEVSKIY, A.P., doktor tekhn. nauk, prof.; BELOUSOV, A.P.,  
kand. tekhn. nauk, dots.; GLADILIN, A.N., kand. tekhn.  
nauk, dots., retsenzent; TSYPKIN, M.Ye., inzh., retsenzent;  
BEYZEL'MAN, R.D., inzh., red.[deceased]; FRID, L.I., inzh.,  
red.izd-va; MODEL', B.I., tekhn. red.

[Arrangement of automatic production lines] Ustroistvo av-  
tomaticheskikh lini. Moskva, Mashgiz, 1963. 242 p.  
(MIRA 17:1)

TSYPKIN, M.Ye.; inzh.; KRASNOV, L.B., inzh.; GOL'TSIKER, D.G., inzh.;  
ASMUS, I.V., inzh.; VERIN, I.I., inzh.; KUCHER, I.M., kand.tekhn.  
nauk, retsenzent; OGLOBLIN, A.N., dots., red.; LEYKINA, T.L.,  
red.izd-va; SOKOLOVA, L.V., tekhn.red.

[Milling machine parts by boring machines] Obrabotka detalei mashin  
na rastochnykh stankakh. Pod obshchei red. A.N.Oglobina. Moskva,  
Gos. nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1958. 339 p.  
(Drilling and boring) (MIRA 11:4)

TSYPKIN, M.Ye. (Ryazan')

Expressions for the measures of curvature and torsion of an  
unusual ruled surface. Izv.vys.ucheb. zav.; mat. no. 1:144-152  
'64. (MIRA 17:5)

Tsyarkin, M. Ye.

PHASE I BOOK EXPLCITATION

531

Tsyarkin, M.Ye., Krasnov, L.B., Gol'tsiker, D.G., Asmus, I.V.,  
Verin, I.I.

Obrabotka detaley mashin na rastochnykh stankakh (Processing of  
Machine Parts on Boring Machines) Moscow, Mashgiz, 1958. 339 p.  
12,000 copies printed.

Ed.: Ogloblin, A.N., Docent; Reviewer: Kucher, I.M., Candidate of  
Technical Sciences; Ed. of Publishing House: Leykina, T.L.;  
Tech. Ed.: Sokolova, L.V.; Managing Ed. for literature on the  
technology of machine building of the Leningrad Branch of  
Mashgiz: Naumov, Ye.P., Engineer.

PURPOSE: This book is recommended as a text for technical schools.  
It is intended also for boring-machine operators in machine-  
building plants specializing in individual and limited series  
production.

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Processing of Machine Parts on Boring Machines

**COVERAGE:** The textbook reviews designs of the most widely used boring machines and explains various aspects of machining piece parts under conditions of individual and limited series production. Examples of machining frame parts with and without the aid of jigs are cited as well as examples of special operations performed on boring machines. Special cutting tools, measuring instruments, and auxiliary tools employed in boring operations are described. Measures for increasing the productive capacity of boring machines and for improving the quality of machining are reviewed. The task of preparing the textbook was apportioned as follows: I.V. Asmus prepared Chapter IV; I.I. Verin, Chapter I; D.G. Gol'tsiker, Chapter II; L.B. Krasnov, Chapter V, VI, and VII and paragraphs 49, 50, and 51 of Chapter VIII; M.E. Tsypkin, Chapter III, paragraph 13 of Chapter IV, paragraph 27 of Chapter V, paragraph 40 of Chapter VI, paragraph 41 of Chapter VII, paragraphs 46, 47, 48, and 51 of Chapter VIII, and Chapter IX. The authors, in compiling the textbook, drew on the experience of the Leningrad Machine-tool Building Plant imeni Sverdlov and the Kramatorsk Plant for heavy machine tools. There are 7 Soviet references.

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# Processing of Machine Parts on Boring Machines

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AVAILABLE: Library of Congress (TJ1260.036)	
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KUCHER, Aleksandr Mikhaylovich, kand. tekhn. nauk; KIVATITSKIY, Mikhail Moiseyevich; POKROVSKIY, Antoniy Aleksandrovich; FEDOTENOK, A.A., doktor tekhn. nauk, retsenzent; TSYPKIN, M.Ye., inzh., retsenzent; SHAVLUGA, N.I., kand. tekhn. nauk, red.; VARKOVETSKAYA, A.I., red. izd-va; LEYKINA, T.L., red. izd-va; KUREPINA, G.N., red. izd-va; SHCHETININA, L.V., tekhn. red.

[Machine tools; album of general design; kinematic diagrams and units] Metallorezhushchie stanki; al'bom obshchikh vidov, kinematicheskikh skhem i uzlov. Pod obshchei red. A.M. Kuchera. Moskva, Mashgiz, 1963. 282 p. (MIRA 16:7)  
(Machine tools—Design and construction)

MARSHAK, I.S., kand.tekhn.nauk; TSYPKIN, N.K., inzh.

Blinding effect of flash light sources. Svetotekhnika 4 no.6:21-22  
Je '58. (MIRA 11:6)

(Light--Physiological effect)

TSYTKIN, SERGEY DMITRIYEVICH

Pravovoye Regulirovaniye Nalogovykh Otnosheniy v SSSR (Lawful Regulation of  
Tax Structure in the USSR) Moskva, Gosyurizdat, 1955.

74 p.

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MATUSEVICH, Ye.S.; TSYPIN, S.G.

Problems of radiation shielding for man in space. Atom.  
energ. 15 no.6:499-504 D '63. (MIRA 17:1)

DULIN, V.A.; KAZANSKIY, Yu.A.; MASHKOVICH, V.P.; PANOV, Ye.A.;  
TSYPIN, S.G.

~~TSYPIN, S.G.~~  
Attenuation functions of neutrons from isotropic and highly  
collimated fission sources in water. Atom.energ. 9 no.4:  
315-317 0 '60. (MIRA 13:9)  
(Neutrons)

TSYPKIN, S. I.  
~~ZYPKIN, S. I.~~

"Isomerism Induced in In 115 By Electron Impact," Dok. AN, 30, No. 5, 1941.

Ukrainian Inst. for Tech. Phys. Kharkov. c1941--.

TSYPKIN, S. I.  
~~ZYPKIN, S. I.~~

"An Investigation of Bremsstrahlung by Means of  
Excited In Nuclei"

Zhur. Phys., 129, No. 3, Vol. VII, 1943

Physico-Tech. Inst., Acad. of Sci. of the Ukrainian  
SSR. c1941-.

Tsypkin, S. I.

USSR/Nuclear Physics — Gamma Rays  
Nuclear Physics — Radioactivity

Nov/Dec 48

"Radioactivity of Be<sup>7</sup>," V. V. Gey, G. D. Latyshev, S. I. Tsypkin, A. A. Yuzefovich, 3 pp

"Iz Ak Nauk SSSR, Ser Fiz" Vol XII, No 6

After measuring the gamma-radiation resulting from annihilation of matter, concludes that if there is a supplementary component in the composition of the gamma-radiation of Be<sup>7</sup>, it does not result from annihilation of matter.

PS 25/49T85

KRUPIN, G.V.; BELYAYEV, I.T.; LAPSHIN, A.A.; GORDEYEV, N.I.; MAR'YANOVSKIY, I.M.; PAVLOV, B.V.; ZHILOV, S.N.; TSYPKIN, S.I.; ANDREYEV, H.H.; KAZIMIROVA, V.F.; KURANOVA, I.L.; PIGULEVSKIY, G.V.

Annotations of the scientific research work performed at the institute in 1957. Trudy ITIKHP 15:213-227 '58.

(MIRA 13:4)

1. Leningradskiy tekhnologicheskoy institut kholodil'noy promyshlennosti.
  2. Kafedra tekhnologicheskogo oborudovaniya pishchevykh proizvodstv (for Krupin, Lapshin, Pavlov).
  3. Kafedra ekonomiki i organizatsii proizvodstva (for Belyayev).
  4. Kafedra detaley mashin i pod'yemno-transportnykh mashin (for Gordeyev).
  5. Kafedra grafiki (for Mar'yanovskiy).
  6. Kafedra promyshlannoy teplotekhniki (for Zhilov).
  7. Kafedra fiziki (for TSypkin).
  8. Kafedra fizicheskoy kolloidnoy i organicheskoy khimii (for Andreyev, Kazimirova, Kuranova, Pigulevskiy).
- (Refrigeration and refrigerating machinery)  
(Chemistry, Technical)

68190  
SOV/58-59-5-10951

24.2700  
24.7600

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 5, p 149 (USSR)

AUTHOR:

Tsyarkin, S.I.

TITLE:

Some Non-Steady Phenomena in the Peltier Effect

PERIODICAL:

Tr. Leningr. tekhnol. in-t kholodil'n prom-sti, 1958, Vol 15, p 224

ABSTRACT:

The author considers briefly the problem of correlating with time ( $\tau$ ) the temperature ( $t$ ) of the cold junction between two semiconductors through which a current is passing. He submits the results of solving this problem (by the operational method) for the case of a thin semi-limited rod with continuously distributed sources of Joule heat, removal of Peltier heat through the butt boundary, and heat exchange with the surrounding medium through the lateral surface. It follows from the general solution that when  $\tau = \infty$ , the optimum magnitude of the steady temperature depends only on  $z = \alpha^2 \sigma / 4 \lambda$  ( $\alpha$  is the thermo-emf,  $\sigma$  and  $\lambda$  are the specific electric and thermal conductivities respectively of the circuit materials). Expansion of the solution into a series shows that  $t(0, \tau)$  has a minimum at all practically essential values of  $z$ . In the event of not too weak

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TSYPKIN, T.I., kand.sel'sko~~kh~~hozyaystvennykh nauk

The Mynbaev Experimental Demonstration Farm. Zhivotnovodstvo  
23 no.8:25-30 Ag '61. (MIRA 16:2)

1. Zaveduyushchiy otделom ekonomiki Kazakhskogo nauchno-  
issledovatel'skogo instituta zhivotnovodstva.  
(Kazakhstan--Agricultural experiment stations)

BELPROZVANNYY, B.K. (Moskva); TEYFIN, V.I. (Moskva); BUZINOV, I.V. (Moskva);  
CHIZHOV, V.A. (Moskva)

Morphology of spontaneous toxoplasmosis of minks. Arkh. pat. 27  
no.2:72-78 '65. (MIRA 18:5)

1. Laboratoriya patomorfologii (ispolnyayushchiy obyazannosti  
zaveduyushchego - kand.med.nauk B.K.Bezprozvanny) Instituta  
virusologii imeni Ivanovskogo (dir. - deystvitel'nyy chlen MN  
SSSR prof. V.M.Zhdanov) i otdel veterinarii (zav. - kand.  
veterinarnykh nauk I.A.Buzinov) Nauchno-issledovatel'skogo  
instituta pushnogo zverovodstva i krolikovodstva (dir. - kand.  
biolog. nauk M.D.Abramov).

TSYPKIN, V. S.  
(Viktor Solomonovich)  
Coal Mines

C/1964

1964

DECEASED

TSYPKIN, Ya. L.

AID P - 2366

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 29/30

Authors : Babakov, N. A., Prof., Tsyarkin, Ya. L., Prof.,  
Shumilovskiy, N. N., Prof., and others, members of  
the Chair of Automatic Control and Regulation of the  
All-Union Correspondence Institute of Electrical  
Engineering

Title : A. A. Voronov. Elementy Teorii Avtomaticheskogo  
Regulirovaniya (Elements of the Theory of Automatic  
Regulation). 2nd Ed., revised and supplemented, 471 pp.,  
1954, Military Publishing House of the Ministry of  
Defense of the USSR (Book review).

Periodical : Elektrichestvo, 5, 87-88, My 1955

Abstract : The authors of the book review discussed it at the  
meeting of the members of the chair. After a systematic  
discussion of every chapter, the authors conclude that  
the book presents a valuable contribution to the presen-  
tation of this new and rapidly developing branch of

Elektrichestvo, 5, 87-88, My 1955

AID P - 2366

Card 2/2 Pub. 27 - 29/30

engineering. Its most important deficiencies are its insufficient development of the theory of non-linearity and that not enough numerical examples are given. Otherwise, the book is highly recommended and was approved by the Ministry of Culture of the USSR.

Institution: None

Submitted : No date

TSYFKIN, Ya. Z.; BRONBERG, P.V.

Institute of Automatics and Telemechanics, Academy of Sciences, USSR. "Concerning Degrees of Stability of Linear Systems." Iz. Ak. Nauk SSSR, Otdel. Tekh. Nauk, No. 12, 1945. Submitted 6 Aug 1945.

Report U-1582, 6 Dec 1951.

TSYPKIN, Ya. Z.

PA 19T23

USSR/Nyquist's Theorem  
Feedback phenomena

Aug 1946

"Stability of Systems with Feedback Coupling," Ya.  
Z. Tsypkin, Candidate of Mech Sci, 12 pp

"Radiotekhnika" Vol I, No 5

The Nyquist criterion employed in investigations of  
systems with feedback coupling involves complicated  
calculations. The present paper suggests a criterion  
which considerably simplifies the analysis.

19T23

TSYPKIN, YA. Z.

PA 20T59

USSR/Radio

Oct/Nov 1946

Circuits, Automatic Frequency Control  
Retardation

"Stability of Automatic Frequency Correction System  
by Considering the Effect of Retardation," Ya. Z.  
Tsypkin, Candidate of Mechanical Sciences, 6 pp

"Radiotekhnika" Vol I, No 7/8

An automatic frequency correction (AFC) system is investigated by considering the effect of retardation. A stability criterion is given which makes it possible to determine the influence of the retardation upon the stability and thus choose parameters which assure stable operation of the AFC system.

20T59



TSYPKIN, Y. A. Z.

K teorii klistrona. (Radiotekhnika, 1947, v. 2, no. 1, p. 42-61,  
diags.)

Summary in English.

Title tr.: Theory of the klystron.

TK5700.R32 1947

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of  
Congress, 1955.

**"APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757320007-9**

**APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757320007-9"**

TSYPKIN, YA. Z.

42281: TSYPKIN, YA. Z. - K zadache o mikrofonnoy tsepi. Trudy Mosk. energet. in-ta im. Molotova, VYP. 3, 1948, s. 153-62.

SO: Letopis' Zhurnal'nykh Statev, Vol.47, 1948

TSYPKIN, YA. Z.

USSR/Electronics  
Regulators, Electronic  
Synchronous Machines

Mar/Apr 1948

"Stability and Ratio of Stability in a System of  
Intermittent Regulation," Ya. Z. Tsypkin, Inst of  
Automatics and Telemekh, Acad Sci USSR, 21 pp

"Automat i Telemekh" Vol IX, No 2

Criteria for the stability of systems of intermittent  
regulation, permitting simple quantitative and quali-  
tative evaluation of the stability. Stability ratios  
for evaluation of processes occurring in systems of  
intermittent regulation. Method for calculating the  
stability of the latter. Studies of the resistance  
of intermittent regulating systems to temperature.  
This was studied for samples possessing feedback  
circuits, and those without feedback circuits. Sub-  
mitted 3 Dec 1947.

PA 64T55

64T55

TSYFKIN, YA. Z

USSR/Electronics

Regulators, Electronic  
Parameters, Stability

May/Jun 1946

"Stability of One Class of Systems of Automatic Regu-  
lation With Divided Parameters," Ya. Z. Tsyfkin,  
14 pp

"Automat i Telemekhan" Vol IX, No 3

Gives criterion of stability of wide class of auto-  
matic regulating systems with divided parameters,  
based on generalization of previously established  
stability criterion of systems with lagging return  
link. Includes examples of application of this

USSR/Electronics (Contd)

May/Jun 1946

criterion to investigation of stability of some  
automatic regulating systems with divided parameters.  
Submitted 27 Nov 1947.

76117

TSYPKIN, YA. Z.

USSR/Electronics

Servo Systems

Fire Control Systems

Jul/Aug 48

"Review of V. A. Besekerskiy's Book "Remote Control of Artillery," M. A. Ayzerman, Ya. Z. Tsypkin, 24 pp

"Avtomatika i Telemekh" Vol IX, No 4

Unfavorable review. Part I: "The Foundations of the Theory of Automatic Regulating and the Theory of the Synchronous-Servo Drive," Published by the Leningrad Order of Red Banner Mil Mech Inst, Leningrad, 1947.

PA 13/49T30

TSYPKIN, YA. Z.

25714

Nerezonansnye Elektricheskie Tsapi s Peremennym i nelineynym Parametrami.  
Elektrichestvo, 1949, No. 8, s. 35-37.

Zh. Radiotekhnika. Primenenie Radio (Radiolokatsiya iproch.) Televideniie  
(eksploatatsionnye UoProsy Radiosvyazi-Sm. XIX, 3)

SO: LETOPIS' No. 34

PA 44/49T36

USSR/Electronics  
Servomechanisms  
Regulators

May/Jun 49

"Theory of Continuous Regulation (Systems With a  
Forced Rhythm of Circuit Interruption)," Ye. Z.  
Tsypkin, Inst of Automatics and Telemekh, Acad  
Sci USSR, 36 pp

"Automat i Telemekh" Vol X, No 3

Classifies systems of continuous regulation.  
Introduces the concept of operator-, frequency-  
and time-characteristics of closed and open  
systems of continuous regulation which permits  
one to avoid enormous calculations necessary

44/49T36

USSR/Electronics (Contd)

May/Jun 49

to set up difference equations and obtain the  
derivation of operator equations which describe  
processes in the system in discrete equidistant  
time (contact) moments. This concept is illus-  
trated in a number of practical systems of con-  
tinuous regulation. Submitted 3 Sep 48.

TSYPKIN Ya. Z.

44/49T36



TSYKIN YA. Z.

1A 1-1T25

USSR/Engineering - Regulation, Dis- Sep/Oct 49  
continuous  
Servomechanisms

"Theory of Discontinuous Regulation: II. Stability of Systems of Discontinuous Regulation,"  
Ya. Z. Tsykin, Inst of Automatics and Telemekh,  
Acad Sci USSR, 20 pp

"Automat i Telemekh" Vol X, No 5

Introduces concept of operator and frequency characteristic for systems of discontinuous regulation, and establishes criteria governing their stability analogous to criteria of stability in systems of continuous regulation.

151T25

USSR/Engineering - Regulation, Dis- Sep/Oct 49  
continuous (Contd)

Applies stability criteria to study of stability in various systems of discontinuous regulation of first and second type, considering separately cases of lag and no lag. Simple graphs demonstrate obvious influence of introducing "derivative" regulation, inflexible and flexible feedback upon the stability of systems, in addition to algebraic criteria applied earlier.  
Submitted 3 Sep 48.

151T25

TSYPKIN, Ya. Z.

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 291 - I

BOOK

Call No.: TK7835.T8

Author: TSYPKIN, YA. Z.

Full Title: TRANSIENT AND STEADY-STATE PROCESSES IN PULSE NETWORKS

Transliterated Title: Perekhodnye i ustanovivshiesya protsessy v impul'snykh tsepyakh

Publishing Data

Originating Agency: None

Publishing House: State Publishing House for Energetics

Date: 1951 No. pp.: 220 No. of copies: 4,000

Editorial Staff

Editor: Dolgolenko, Yu. V., Tech. Ed.: None  
Candidate of Technical Sciences

Editor-in-Chief: None

Appraiser: None

Others: The author expresses his gratitude to Engineer O. A. Retzkaya who contributed most of the graph computations, and to Yu. V. Dolgolenko, Candidate of Technical Sciences, who made valuable comments during the editing of the text.

Text Data

Coverage: An exposition of the theory and analysis of transient and  
1/2

Perekhodnye i ustanovivshiesya protsessy  
v impul'snykh tsepyakh

AID 291 - I

steady-state processes in pulse networks, specifically, in linear electric circuits and mechanical systems with pulse input. The developed theory is applied to the study of intermittent and relay-type control systems.

The book is primarily theoretical in nature. The discussion revolves around a simple and comprehensive method of analysis and computation, illustrated with specific characteristic examples with a full complement of formulas and graphs.

Table of Contents:

Ch. 1	Elements of Laplace's Transforms.
2	Pulse Networks.
3	Pulse Feedback Systems.
4	Relay Feedback Systems.

Purpose: Intended for scientists, candidates for academic degrees, and research engineers working in the fields of electrical and radio engineering, and automatics.

Facilities: Not given

No. of Russian and Slavic References: 47 (of these, 10 are non-Soviet)

Available: Library of Congress.

2/2

TSYPKIN, YA. Z.

USSR/Physics - Regulation, Discoun-  
tinuous (Discrete)

May/Jun 51

"Discussion: Remarks on the Work of Ya. Z. Tsypkin,  
'Theory of Discontinuous (Discrete) Regulation.  
I,' I. A. Yakovlev

"Avtomat i Telemekh" Vol XII, No 3, pp 232-234

Touches on the connection between "discrete La-  
place transformations," introduced by Ya. Z.  
Tsypkin in "Avtomat i Telemekh" Vol X, No 3, 189,  
1949, and ordinary Laplace transformations. Cf.  
D. V. Widder's "The Laplace Transformation," 1941  
Submitted 1 Dec 50. (In a note to the editors  
Tsypkin acknowledges making an incorrect assertion)

217T63

TSYPKIN, Ya M; Naumov, Boris Nikolayevich, Meyerov, M. V., Ponia, E M

"Study of the Frequency Regulation Process in the System Moscow-Kuibyshev,"  
Scientific Report of the Inst of Automation and Telemechanics, USSR Acad of  
Sciences, 1952.

TSYPKIN, Ya Z.; Naumov, Boris Nikolayevich; Myerov, M. V.; Cheloumova, D. G.;  
Pomis, E. N.

"Investigation of the Velocity Regulation Process in the System  
Moscow-Kuibyshev, with Special Reference to the Phenomenon of the Retardation  
in the Kuibyshev Hydroturbine," Scientific Report of the Inst. of Automation  
and Telemechanics, USSR Acad. of Sciences, 1952.

TSYPKIN, Ya. E.; Naumov, Boris Nikolayevich

"Investigation of the Regulation Process of Frequency and Power Transfer (?)  
in the System Moscow-Kuibyshev," Scientific Report of the IAT, USSR Acad.  
of Sciences, 1952.

TSYPKIN, Ya. Z

"Forced Oscillations in Relay-Type Automatic Control Systems," Inst. of  
Automatics and Telemechanics, AS USSR, Avtomat. i Telemekh., Vol. 13, No 5,  
pp 501-525, 1952

Gives a precise method for investigating forced oscillations in relay systems.  
Method involves the "generalized frequency response" of open-loop relay systems. This  
has been used previously for the study of stability and self-excited oscillations.  
Submitted 26 Apr 52.

256T64



TSYPKIN YA. Z.

Tsyarkin Ya. Z., "An Annotated Index of Works on the Theory of Automatic Regulation for the Year 1947," Issue 1, Moscow, 1953, 23 pages; bibliography, 43 items (USSR Ministry of Culture, All-Union Correspondence Energy Institute, Department of Automatic Control and Regulation).

TSYPKIN YA. Z.

Tsyarkin Ya. Z., "Letter on Techniques for the Course, 'Theory of Automatic Regulation'," Moscow, 1953, 23 pages (All-Union Correspondence Energy Institute).

TSYPKIN YA. Z.

Tsyarkin Ya. Z., "Reliability of Automatic Regulation Systems," lecture,  
Moscow, 1953, 56 pages with sketches, All-Union Correspondence  
Energy Institute, Department of Automatic Control and Regulation.

V: 63

TSYPKIN, YA. S

Tsyarkin, Ya. S. defended his Doctor's dissertation in the Institute of Automatics and Telemechanics, Academy of Sciences USSR on 6 February 1943, for the academic degree of Doctor of Technical Sciences.

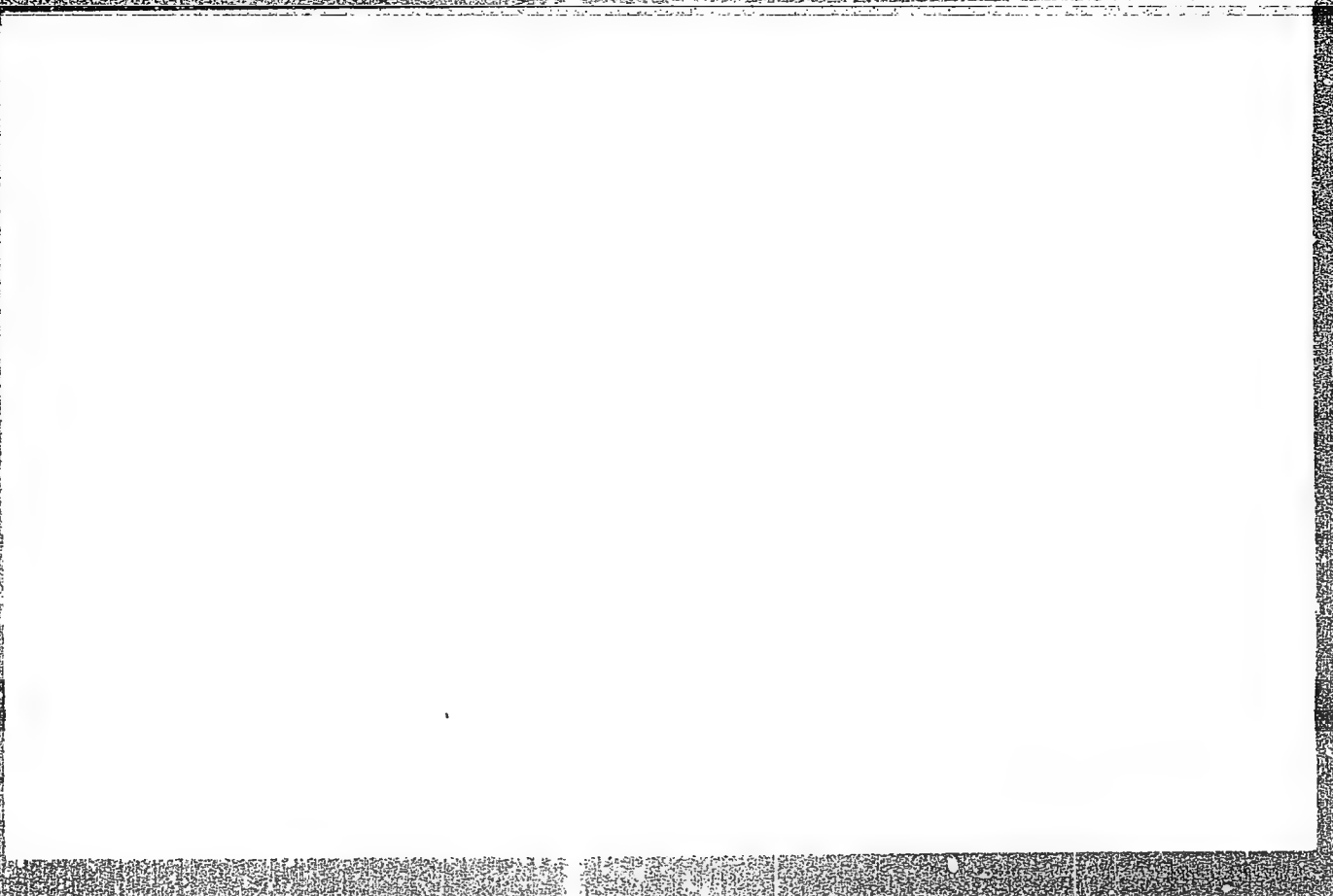
Dissertation: "Systems with Delayed Feedback". Resume: Tsyarkin examined systems with delayed feedback, developed stability criteria and methods for investigating the degree of stability and constructed transient and forced processes for linear systems. Methods were also developed for investigating self-induced oscillations in nonlinear systems. The methods were used for analysis and calculation of systems for automatic regulation of pressure and temperature of a servo system, an aircraft automatic pilot, ultra-short-wave generators, klystrons, systems with distributed parameters, and others. The theory described is applicable to analysis and calculation of complex systems with lumped parameters, which can be approximately replaced by simple equivalent systems.

Official Opponents: Profs. A. A. Andronov; K. F. Teodorovich, (Doctor of Technical Sciences); K. M. Polivanov; and B. N. Petrov (Doctor of Technical Sciences).

SO: Elektrichestvo, No. 7, Moscow, August 1953, pp 87-92 (W/29844, 16 Apr 54)

**"APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757320007-9**



**APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757320007-9"**

TSYPKIN, Ya.Z. (Moskva)

Calculating intermittent control systems in the presence of stationary random influences. Avtom. i telem. 14 no.4:353-374 J1-Ag '53.

(MLRA 10:3)

(Automatic control)

TSYPKIN, Ya. Z. (Moskva)

On I. A. Iakovlev's article "Limits of applying I.A.Z. Tsypkin's method  
to the theory of pulse control". Avtom. i telem. 14 no.4:466-470 J1-  
Ag '53. (MIRA 10:3)

(Automatic control) (Pulse techniques(Electronics))

TSYPKIN, YA. Z.

PETROV, B.M.; TSYPKIN, Ya. Z.; KURAKIN, K.I.; TIKHONOV, V.I.; SIYITSYN, A.S.

Resolutions of the committee selected by the seminar on the theory  
of automatic control after discussing V. V. Solodovnikov's book  
"Introduction to the statistical dynamics of automatic control systems".  
Avtom. i telem. 14 no.4:477 J1-Ag '53. (MLRA 10:3)  
(Automatic control)



TSYPKIN, YA. Z.

"Stability of Periodic Operating Conditions in Relay Systems of Automatic Regulation", Avtomatika i Telemekhanika, Vol 14, No 5, 1953, pp 638-646.

Analyses a relay system, consisting of a linear element and a relay element, the characteristic of which is  $u_p = \phi(u_{BX})$  ( $u_p, u_{BX}$  -- output and input coordinates of the relay) acquires the values  $\pm K_n$ .

The linear part of the system may contain lumped and distributed parameters. The external periodic reaction is coupled to the input of the relay element.

Considering the simplest periodic operating condition  $u_{BX}, T(t), T = \pi/\omega_0$  as determined, the author solves the problem of its stability. The equation of variations is written in the form

$$Q(D) \xi(t) = P(D) \xi_1(t) \quad (D = \frac{d}{dt}) \quad (1)$$

Here  $Q(D), P(D)$  are polynomial or transcendent functions

$$\varepsilon_1(t) = - \frac{2k_u}{\dot{u}_{BX}T(T)} \sum_{m=0}^{\infty} \delta(t-mT) \varepsilon(mT)$$

The prime in the summation sign means that for  $m = 0$  the term is multiplied by  $\frac{1}{2}$ .

It may be considered that the equation (1) corresponds to the system of intermittent regulation, in which the linear part of the system coincides with the linear part of the relay system, and the pulse element is characterized by a recurrent period equal to the half period  $T$ , infinitely small porosity and amplification factor

$$\overline{k_u} = \frac{2k_u}{\dot{u}_{BX}T(T)}$$

Hence the investigation of stability of a periodic operating condition in the relay system leads to the investigation of the stability of a certain system of intermittent regulation. The fact of stability (instability) of the system of intermittent regulation is established by means of well-known criteria. (RZhMekh, No 11, 1954)  
SO: Sum. No. 443, 5 Apr. 55

*TSYPKIN, Ya. Z.*

SOLODOVNIKOV, V.V.; professor, doktor tekhnicheskikh nauk, redaktor;  
 AYZERMAN, M.A., doktor tekhnicheskikh nauk; BASHKIROV, D.A., kandidat  
 tekhnicheskikh nauk; BROMBERG, P.V., kandidat tekhnicheskikh nauk;  
 VORONOV, A.A., kandidat tekhnicheskikh nauk, dotsent; GOL'DFARB, L.S.,  
 doktor tekhnicheskikh nauk, professor; KAZAKEVICH, V.V., doktor tekhnicheskikh nauk;  
 KRASOVSKIY, A.A., kandidat tekhnicheskikh nauk, dotsent; LERNER, A.Ya., kandidat tekhnicheskikh nauk; LETOV, A.M.,  
 doktor fiziko-matematicheskikh nauk; professor; MATVEYEV, P.S.,  
 inzhener; MIKHAYLOV, F.A., kandidat tekhnicheskikh nauk; PETROV, B.N.;  
 PETROV, V.V., kandidat tekhnicheskikh nauk; POSPELOV, G.S., kandidat  
 tekhnicheskikh nauk, dotsent; TOPCHEYEV, Yu.I., inzhener; ULANOV,  
 G.M., kandidat tekhnicheskikh nauk; KHRAMOY, A.V., kandidat tekhnicheskikh nauk;  
 TSYPKIN, Ya. Z., doktor tekhnicheskikh nauk, professor;  
 LOSSIYEVSKIY, V.L., doktor tekhnicheskikh nauk, professor, retsenzent;  
 TIKHONOV, A.Ya., tekhnicheskii redaktor

[Fundamentals of automatic control; theory] Osnovy avtomaticheskogo  
 regulirovaniya; teoriya. Moskva, Gos. nauchno-tekhn. izd-vo mashino-  
 stroit. lit-ry, 1954. 1116 p. (MLRA 8:2)

1. Chlen-korrespondent AN SSSR (for Petrov, B.N.)  
 (Automatic control)

**"APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757320007-9**

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**APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757320007-9"**

*Tsyarkin, Ya. Z.*

AYZERMAN, M.A., dokt. tekhn. nauk, redaktor; VORONOV, A.A., kandidat tekhn. nauk, redaktor; KOGAN, B.Ya., kandidat tekhn. nauk, redaktor; KOTEL'NIKOV, V.A., kandidat tekhn. nauk, redaktor; LETOV, A.M., dokt. fiz.-mat. nauk, redaktor; LOSSEYEVSKIY, V.I., dokt. tekhn. nauk, redaktor; KHRAMOY, A.V., kand. tekhn. nauk, redaktor; TRAPEZNIKOV, V.A., redaktor; MEYEROV, M.V., dokt. tekhn. nauk, redaktor; NAUMOV, B.N., redaktor; PETROV, B.N., redaktor; SOLODOVNIKOV, V.V., dokt. tekhn. nauk, redaktor; TSYARKIN, Ya.Z., dokt. tekhn. nauk, redaktor; PEVZNER, R.S., tekhn. redaktor.

[Proceedings of the Second All-Union Conference on the Theory of Automatic Control.] Trudy Vtorogo Vsesoiuznogo soveshchaniya po teorii avtomaticheskogo regulirovaniya. Moskva, Izd-vo Akad. nauk SSSR, [Vol. 1 Problem of continuous and periodic operations in the theory of automatic control] Vol.1 Problema ustoychivosti i periodicheskikh rezhimov v teorii avtomaticheskogo regulirovaniya. (MLA 8:8) 1955. 603 p.

1. Chlen korrespondent AN SSSR (for Trapeznikov, Petrov) 2. Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki.



**"APPROVED FOR RELEASE: 08/31/2001**

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**APPROVED FOR RELEASE: 08/31/2001**

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**APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757320007-9"**

**TSYPKIN, Ya.Z.**

Calculation of amplitude characteristics of limiters. Radiotekh-  
nika 10 no.12:71-74 D '55. (MLRA 9:3)  
(Radio)

USSR/Automatics and telemechanics-pulse forms

FD-2759

Card 1/2            Pub. 10 - 4/11

Author            : Tsypkin, Ya. Z. (Moscow)

Title             : Taking into account the form of pulses in systems of discontinuous regulation

Periodical        : Avtom. i telem., 16, Sep-Oct 1955, 462-466

Abstract          : The author shows that the theory expounded earlier by him ("Theory of discontinuous regulation. I, II, III," *ibid.*, 10, Nos 3 and 5, 1949; 11, No 5, 1950. "Frequency method of analyzing systems of discontinuous regulation," *ibid.*, 14, No 1, 1953) is applicable also to systems of discontinuous regulation of the first type which are characterized by the fact that the output quantity of pulse element is represented as a sequence of pulses of arbitrary form which are equidistant from one another. References: V. V. Solodovnikov, *Vvedeniye v statisticheskuyu dinamiku sistem avtomaticheskogo upravleniya* [Introduction to statistical dynamics of automatic regulation systems], State Technical Press, 1952; A. A. Voronov, *Elementy teorii avtomaticheskogo regulirovaniya* [Elements of the theory of automatic regulation], Military Press, 1954; Ya. D. Shirman, "Simplified methods of analyzing the spectra of impulse

Card 2/2

FD-2759

modulation," Trudy LKVVIA [Works of Leningrad Military and  
Aeronautical Engineering Academy], No 19, 1948; translation from  
English of "Generation of electric oscillations of special form,"  
Volume II, Soviet Radio Press, 1951.

Institution : -

Submitted : January 26, 1955

TSYPKIN, Ya.Z., professor, otvetstvennyy redaktor; POPKOV, S.L., redaktor  
izdatel'stva; AUZAN, N.P., tekhnicheskii redaktor

[A collection of papers on automatic and remote control; proceedings  
of the Second and Third Scientific and Technical Conferences of  
Young Specialists of the Institute of Automatic and Remote Control in  
the Academy of Sciences of the U.S.S.R.] Sbornik robotov po avtomatike  
i telemekhanike; trudy vtoroi i tret'ei nauchno-tekhnicheskikh kon-  
ferentsii molodykh spetsialistov Instituta avtomatiki i telemekhaniki  
Akademii nauk SSSR. Moskva, 1956. 287 p. (MIRA 9:11)

1. Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki.  
(Automatic control) (Remote control)



TSYPKIN, YA. Z., Dr. of Tech. Sci.

"Certain Problems of Dynamics of Regulation Systems and of Control With Digital Computing Installations" a paper presented at the Conference on Methods of Development of Soviet Mathematical Machine-Building and Instrument-Building, 12-17 March 1956.

Translation No. 596, 8 Oct 56

TSYPKIN, Ya. Z. Prof.

"The Synthesis of Pulse Systems for Automatic Regulation and Control," a paper read at the Convention on Control Technique, Heidelberg, 24-29 Sep 56

Inst. Automatics and Telemechanics, Moscow

Tsyppkin, Ya. Z.

USSR/Electrophysics - General Problems, I-1

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35237

Author: Tsyppkin, Ya. Z.

Institution: None

Title: On the Connection Between the Equivalent Amplification Coefficient of a Nonlinear Element and Its Characteristic

Original  
Periodical: Avtomatika i telemekhanika, 1956, 17, No 4, 343-346

Abstract: An explicit relationship is derived between the equivalent complex amplification coefficient ("average transconductance")  $\bar{H}(A)$  and the characteristic of a nonlinear element  $F(x_1)$ . For a symmetrical characteristic, an approximate equation was obtained

$$S(A) = \frac{2}{3A} \left[ F(A) + F\left(\frac{A}{2}\right) \right],$$
 which was illustrated by a graph for cases of typical  $F(x)$ . More exact equations are also given for  $S(A)$ , as well as tables with the values  $S(A, w)$  for certain nonsymmetrical characteristics, and a graphic method for obtaining  $S(A)$  directly

Card 1/2

USSR/Electrophysics - General Problems, I-1

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35237

Abstract: from the  $F(x)_1$  curve is indicated. All the results are obtained using V. A. Steklov's method for calculating the integral.

$$SA = \frac{2}{\pi A} \int_1^{\pi} F(A \cos \psi) \cos \psi d\psi = \frac{2}{\pi A} \int_{-1}^1 \frac{F(Ay)y}{\sqrt{1-y^2}} dy, \text{ where } y = \cos \psi.$$

Card 2/2

**"APPROVED FOR RELEASE: 08/31/2001**

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**APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757320007-9"**

TSYPKIN, Ya.Z., (Moskva)

Automatic control systems containing digital computers.  
Avtom. i telem. 17 no.8:665-679 Ag '56.

(MLRA 9:10)

(Automatic control) (Calculating machines)

TSYPKIN, Ya. Z

"Investigation of Steady-State Processes in Pulse Servosystems," by Ya. Z. Tsypkin, Moscow, Avtomatika i Telemekhanika, Vol 17, No 12, Dec 56, pp 1057-1069

The author presents an expression for the steady-state error of pulse systems. He describes various methods for computing error coefficients and investigates a steady-state process in the simplest pulse servosystem.

"Pulse servosystems are widely used in pulse engineering, radio location, and computer engineering."

Sum 1258

TSYPKIN, Y. Z., Institute of Automotics and Telemechanics, AS USSR, Moscow

"Some Problems on the Theory of Discrete Automatic Systems," a paper presented at the Conference on Computers in Control Systems, Atlantic City, N. J., 16-18 Oct 57.

C-3,800,407.



SOV/124-58-1-144  
Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 17 (USSR)

AUTHOR: ~~Tsy~~ypkin, Ya. Z.

TITLE: The State of the Art and Development Objectives of the Theory of Discrete-action Feedback Control Systems (Sostoyaniye i zadachi razvitiya teorii sistem avtomaticheskogo upravleniya diskretnogo deystviya)

PERIODICAL: Sessiya AN SSSR po nauchn. probl. avtomatiz. proiz-va, 1956, Vol 2. Moscow, AN SSSR, 1957, pp 233-253

ABSTRACT: Bibliographic entry

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Transient processes in nonlinear automatic control systems.  
Izv. Akad. Nauk SSSR Tekh. nauki no.1:72-104 '57. (MLRA 10:8)  
(Automatic control)

TS'PKIN, Ya. Z. (Prof.)

"Condition and Problems of the Development of the Theory of Discrete Action Automatic Control Systems,"

paper read at the Session of the Acad. Sci..USSR, on Scientific Problems of Automatic Production, 15-20 October 1956.  
Avtomatika i telemekhanika, no. 2, p. 182-192, 1957.

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Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 7 (USSR)

AUTHORS: Tsyarkin, Ya.Z., Gol'denberg, L.M.

TITLE: How to Construct a Transient Process in Automatic Control Systems From the Characteristics of Their Separate Components (Postroyeniye perekhodnogo protsessa v sistemakh avtomaticheskogo regulirovaniya po kharakteristikam ikh otdel'nykh zven'yev)

PERIODICAL: Tr. Vses. zaochn. energ. in-ta, 1957, Nr 7, pp 90-106

ABSTRACT: A study is made of the problem of calculating approximately the time characteristics of closed linear systems by using transfer functions or using the time characteristics of the systems' individual components. According to the well-known formula of the theory of impulse control systems, a transition is accomplished from the continuous transfer function to a discrete transfer function. The relationship between the discrete values of the output and input values in a continuous system is written as a summation (the discrete weight function). The weight factors of this summation are equal to the coefficients of the expansion into a series of the discrete

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